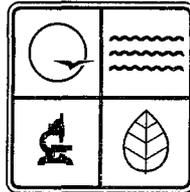


## DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION



## PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: **042007 - 005** Project Number: **2007-01-061**  
 Owner: **AmerenUE** **PORT-0584**  
 Owner's Address: **1901 Chouteau Avenue, St. Louis, MO 63103**  
 Installation Name: **AmerenUE Taum Sauk**  
 Installation Address: **Route 1, Annapolis, MO 63620**  
 Location Information: **Reynolds County, S22, T33N, R2E**

Application for Authority to Construct was made for:

The installation of a new portable rock-crushing plant. The portable rock-crushing plant has a maximum hourly design rate (MHDR) of 1,400 tons per hour (tph). Best Management Practices will be used to control fugitive emissions from haul roads and storage piles. This review was conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

- Standard Conditions (on reverse) are applicable to this permit.
- Standard Conditions (on reverse) and Special Conditions (listed as attachments starting on page 2) are applicable to this permit.

APR - 6 2007

EFFECTIVE DATE

*James Kavanagh*  
 DIRECTOR OR DESIGNEE  
 DEPARTMENT OF NATURAL RESOURCES

PERMIT

STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

**You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review.** Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. Also, you must notify the Department of Natural Resources Regional Office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed Special Conditions as provided in RSMo 643.075. If you choose to appeal, the Air Pollution Control Program must receive your written declaration within 30 days of receipt of this permit.

If you choose not to appeal, this certificate, the project review, your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Department of Natural Resources has established the Outreach and Assistance Center to help in completing future applications or fielding complaints about the permitting process. You are invited to contact them at 1-800-361-4827 or (573) 526-6627, or in writing addressed to Outreach and Assistance Center, P.O. Box 176, Jefferson City, MO 65102-0176.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention Construction Permit Unit.

2007-01-061  
PORT-0584

AmerenUE

1901 Chouteau Avenue, St. Louis, MO 63103

AmerenUE Taum Sauk

Route 1, Annapolis, MO 63620

Reynolds County, S22, T33N, R2E

The installation of a new portable rock-crushing plant. The portable rock-crushing plant has a maximum hourly design rate (MHDR) of 1,400 tons per hour (tph). Best Management Practices will be used to control fugitive emissions from haul roads and storage piles. This review was conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

|             |             |
|-------------|-------------|
| Page No.    | 2           |
| Permit No.  |             |
| Project No. | 2007-01-061 |

**GENERAL SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

*The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075); by the Missouri Rules listed in Title 10, Division 10 of the Codes of State Regulations (specifically 10 CSR 10-6.060); by 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority"; by 10 CSR 10-6.010 "Ambient Air Quality Standards" and 10 CSR 10-6.060 subsections (5)(D) and (6)(A); and by control measures requested by the applicant, in their permit application, to reduce the amount of air pollutants being emitted, in accordance with 10 CSR 10-6.060 paragraph (6)(E)3. Furthermore, one or more of the Subparts of 40 CFR Part 60, New Source Performance Standards (NSPS), applies to this installation.*

1. **Portable Equipment Identification Requirement**  
To assure that each component is properly identified as being a part of this portable rock-crushing plant, PORT-0584, AmerenUE shall provide and maintain suitable, easily read permanent markings on each component of the plant. These markings shall be the equipment's serial number or a company assigned identification number that uniquely identifies the individual component. These identification numbers must be submitted to the Air Pollution Control Program no later than 15 days after start-up of the portable rock crushing plant.
2. **Relocation of Portable Rock-Crushing Plant**
  - A. The portable rock-crushing plant shall not be operated at any site location longer than 24 consecutive months without an intervening relocation.
  - B. A complete "Portable Source Relocation Request" application must be submitted to the Air Pollution Control Program prior to any relocation of this portable rock-crushing plant.
    - 1.) If the portable rock-crushing plant is moving to a site previously permitted, and if there are no other new plants at the site, then the application must be received by the Air Pollution Control Program at least seven (7) days prior to the relocation.
    - 2.) If the portable rock-crushing plant is moving to a new site, or if there are other plants or equipment at the site that have not been evaluated for concurrent operation, then the application must be received by the Air Pollution Control Program at least twenty-one (21) days prior to the relocation. The application must include written notification of any concurrently operating plants.
3. **Performance Testing for New Source Performance Standards (NSPS)**
  - A. AmerenUE shall submit the enclosed testing plan to the Enforcement section of the Air Pollution Control Program for all equipment applicable to NSPS Subpart "OOO". AmerenUE shall contact the Enforcement section to obtain all requirements for testing, and the plan must be submitted to the Enforcement section at least 30 days prior to the proposed test date.
  - B. Testing must be performed no later than 60 days after achieving the maximum production rate of the process, and in any case no later than 180 days after initial startup. The performance test results shall be submitted to the Enforcement section no later than 30 days after completion of any required testing.
4. **Record Keeping Requirement**  
The operator(s) shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.
5. **Reporting Requirement**  
The operator(s) shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after any exceedances of the limitations imposed by this permit.

|             |             |
|-------------|-------------|
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| Permit No.  |             |
| Project No. | 2007-01-061 |

**SITE-SPECIFIC SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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Site ID No.: 179-0032  
Site Name: AmerenUE Taum Sauk  
Site Address: Route 1, Annapolis, MO 63620  
Site County: Reynolds County, S22, T33N, R2E

1. **Best Management Practices**

AmerenUE shall control fugitive emissions from all of the haul roads and stockpiles at this site by performing *Best Management Practices*, which include the usage of paving, chemical dust suppressants, or documented watering. These practices are defined in Attachment AA.

  - A. The operator(s) shall pave all haul roads and all vehicular activity areas around the storage piles with materials such as asphalt, concrete, and/or other suitable material(s). The pavement will be applied in accordance with industry standards for such pavement so as to achieve "Control of Fugitive Emissions" while the plant is operating.
  - B. The operator(s) shall also control the fugitive emissions from all haul roads and vehicular activity areas around the storage piles by consistently and correctly using and documenting the application of a water spray. Documented watering shall be applied in accordance with a recommended application rate of 100 gallons per day per 1,000 square feet of surface area as necessary to achieve control of fugitive emissions from these areas while the plant is operating. For example, the operator shall calculate the total square feet of paved vehicle activity area on any particular day, divide that product by 1,000, and multiply the quotient by 100 gallons for that day.
  - C. The operator(s) shall maintain a log that documents daily water applications. This log shall include, but is not limited to, date and volume of water applied (e.g., number of tanker applications and/or total gallons used). The log shall also record rationale for not applying water applications on days of operation (e.g., meteorological situations, precipitation events, freezing, etc.)
  - D. Meteorological precipitation of any kind, (e.g., a quarter inch or more rainfall, sleet, snow, and/or freeze thaw conditions) that is sufficient in amount or condition to achieve control of particulate matter from these areas while the plant is operating, may be substituted for documented water application until such time as conditions warrant applying documented watering.
  - E. Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads. The operators shall record a brief description of such events in the same log as the documented watering.
  
2. **National Ambient Air Quality Standards (NAAQS) Limitation for Particulate Matter Less Than Ten Microns in Diameter (PM<sub>10</sub>)**
  - A. The operator(s) for AmerenUE's portable rock-crushing plant (PORT-0584) shall ensure, while operating at this site, that the ambient impact of PM<sub>10</sub> at or beyond the nearest property boundary does not exceed 150 µg/m<sup>3</sup> in any 24-hour period, in accordance with the Federal NAAQS requirements (40 CFR 50.6).
  - B. The portable rock-crushing plant is permitted to operate under four (4) scenarios: solitary, concurrent (same owner), concurrent (separate owners), and concurrent (same **and** separate owners) operations. The total daily ambient impact of PM<sub>10</sub> at this site shall include the combined impact of the portable rock-crushing plant and any ambient background concentration from installations or equipment located on the same site as the portable rock-crushing plant.
    1. During solitary operations, the operators of the portable rock-crushing plant do not need to maintain a daily record of material processed and the resulting daily PM<sub>10</sub> ambient impact to show compliance with site specific condition 2A.
    2. During concurrent (same owner) operations, the operator(s) shall demonstrate compliance with site specific condition 2A by maintaining a daily record of material processed and the resulting daily PM<sub>10</sub> ambient impact. Attachment A, *Daily Ambient PM<sub>10</sub> Impact Tracking Record, Concurrent (Same Owner) Operations*, or other equivalent form(s), shall be used for this purpose.
    3. During concurrent (separate owners) operations, the operators of the portable rock-crushing plant do not need to maintain a daily record of material processed and the resulting daily PM<sub>10</sub> ambient

|             |             |
|-------------|-------------|
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| Project No. | 2007-01-061 |

**SITE-SPECIFIC SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

- impact to show compliance with site specific condition 2A.
4. During concurrent (same **and** separate owners) operations, the operator(s) shall demonstrate compliance with site specific condition 2A by maintaining a daily record of material processed and the resulting daily PM<sub>10</sub> ambient impact. Attachment B, *Daily Ambient PM<sub>10</sub> Impact Tracking Record, Concurrent (Same and Separate Owners) Operations*, or other equivalent form(s), shall be used for this purpose.
  3. Annual Emission Limit of Particulate Matter Less Than Ten Microns in Diameter (PM<sub>10</sub>)
    - A. The operator(s) shall ensure that AmerenUE's portable rock-crushing plant emits less than 50 tons of PM<sub>10</sub> into the atmosphere in any 12-month period.
    - B. To demonstrate compliance with site specific condition 3A, the operator(s) shall maintain a daily record of material processed and PM<sub>10</sub> emissions. Attachment C, *Monthly PM<sub>10</sub> Emissions Tracking Record*, or other equivalent form(s), shall be used for this purpose.
  4. Moisture Content Testing of Storage Piles Requirement
    - A. The moisture content of the stockpiled rock will reduce particulate emissions. AmerenUE claimed the moisture content of the stored rock to be greater than or equal to 1.5 wt.%, which shall be verified by testing.
    - B. Testing shall be conducted according to approved methods, such as those prescribed by the *American Society for Testing Materials (ASTM D-2216 or C-566)*, EPA AP-42 Appendix C.2, or other method(s) approved by the Director. AmerenUE provided document of testing. Testing shall be conducted at least once every two years after the initial test, during the months of June through September, while the portable rock crushing plant is active at this site.
    - C. The operator shall obtain test samples from each storage pile area. The written analytical report shall include the raw data and moisture content (wt.%) of each sample, the test date, and the original signature of the individual performing the test. Within 30 days of completion of the required tests, the report shall be filed on-site or at the AmerenUE main office.
    - D. If the moisture content result of the first test is less than 1.5 wt.%, a second test must be performed within 30 days. If the result of the second test is less than 1.5 wt.%, AmerenUE shall apply for a new construction permit to account for the revised information or install wet spray devices on the affected units.
  5. Restriction on Process Configuration of Primary Emission Point(s)

The maximum hourly design rate of the plant is equal to the sum of the design rate(s) of the primary emission point(s). AmerenUE has designated the following unit(s) as the primary emission point(s) of the portable rock crushing plant: Primary Crusher (CR1, Sandvik 44 x 48 jaw crusher) and Primary Crusher (CR2, Sandvik 44 x 48 jaw crusher). Bypassing the primary emission point(s) for processing is prohibited.
  6. Restriction on the Use of Diesel Engine(s)/Generator(s)

The rock-crushing plant shall power its equipment using electrical line power and not diesel engines/generators. If the company decides to switch to diesel engines/generators, a new permit review will be required. An emergency diesel engine/generator is permitted to operate in case of power failure. The emergency diesel engine/generator shall not operate more than 500 hours per year. If it operates for more than 500 hours during the year, it will no longer be exempt and AmerenUE must apply for a new permit review.
  7. Restriction on Minimum Distance to Nearest Property Boundary

The primary emission points of the portable rock-crushing plant, which are the primary crushers (CR1 and CR2), shall be located at least 2,500 feet from the nearest property boundary whenever it is operating at this site.

# TECHNICAL REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT

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## PROJECT DESCRIPTION

AmerenUE is in the process of evaluating the feasibility of rebuilding the Taum Sauk upper reservoir. Even though AmerenUE has not made a firm decision to pursue the rebuild, it would like have the ability to start construction as soon as a decision has been made. Therefore, AmerenUE has asked the Air Pollution Control Program to permit the plants necessary for rebuilding of the reservoir.

The rebuild of the reservoir will require the operation of five plants.

- 1.) A 1,400 tons per hour (tph) rock-crushing plant.
- 2.) A primary RCC (Roller Compacted Concrete) Plant with two RCC operations totaling 2,100 tph or less.
- 3.) A secondary RCC plant rated 480 tph or less.
- 4.) A conventional concrete plant rated 600 tph or less.
- 5.) An asphalt plant rated 400 tph or less.

This permit is written for the 1,400 tph rock-crushing plant. There are two (2) primary crushers each rated at 700 tph. Processing equipment are powered with primary electrical power and not diesel engines. If AmerenUE decides to switch to diesel engines, a new permit review will be required. An emergency diesel engine/generator is permitted to be used in case of power failures. This emergency diesel generator/engine is exempt from permitting according to Missouri State Rules CSR 10-6.061 *Construction Permit Exemptions* (3)(A)2.BB., provided that it does not operate more than 500 hours per year, but its ambient impact and emissions should still be taken into account. The daily PM<sub>10</sub> ambient impact from the operation of the diesel engine/generator is included in the ambient impact analysis and the PM<sub>10</sub> emissions is included in the emissions evaluation.

The emission points are listed in the attached spreadsheet summary. This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2]. The installation is located in Reynolds County, an attainment area for all criteria air pollutants. The plant is permitted to operate under four (4) separate scenarios:

- Solitary Operations: Operations when the rock-crushing plant is located at the site by itself.
- Concurrent (Same Owner) Operations: Operations when other asphalt, concrete, rock-crushing, or rock-screening plants with permits issued under AmerenUE are located at the site.
- Concurrent (Separate Owner) Operations: Operations when other asphalt, concrete, rock-crushing, or rock-screening plant with permits issued under other company's names are located at the site.
- Concurrent (Same **and** Separate Owners) Operations: Operations when other asphalt, concrete, rock-crushing, or rock-screening plants with permits issued under AmerenUE are located at the site at the same time as other asphalt, concrete, rock-crushing, or rock-screening plants with permits issued under other company's names.

The plants that will operate at this site are owned by other companies, but AmerenUE has asked the permits for some of these plants to be issued under AmerenUE's name. For all permits issued to AmerenUE, AmerenUE will be responsible for keeping all plants in compliance with applicable air pollution control rules, Department of Natural Resources' rules, or any other federal, state, or local agency regulations. All compliance records shall be kept with the plant or at the AmerenUE main corporate office and be made available to Department of Natural Resources personnel upon request.

There is a Roland Machinery concrete crusher currently operating at the site. By itself, this concrete crusher does not need a permit because its emissions are under *de minimis* levels. This no permit required determination is based on the fact that no haul roads and storage piles will be used. If the company decides, in the future, to add haul roads and/or storage piles, a new construction permit review will be required. Furthermore, the PM<sub>10</sub> ambient impact of this concrete crusher must be taken into account in the ambient impact analysis. The concrete crusher is 2,500 feet away from the nearest property boundary and a PM<sub>10</sub> ambient impact factor was developed using this distance. This ambient impact factor is included in record keep sheets, Attachment A and B, and should be used to calculate the ambient impact from the concrete crushing plant.

Best Management Practices will be used at the site to control fugitive emissions from haul roads and storage pile. In order to acquire a control efficiency of 95% instead of the 90% usually given for the use of BMPs, AmerenUE has proposed to not only pave all haul roads and vehicular activity area around storage piles, but also carry out documented watering on these haul roads and storage pile vehicular activity areas.

The site has had one (1) permit issued to it in the past. It is a temporary permit (permit #092006-011, Project 2006-09-022) issued to AmerenUE to allow the construction of a concrete plant for building test pads. The permit expires in March 31, 2007.

**EMISSIONS EVALUATION**

Criteria air pollutants will be emitted from this operation. The main air pollutant of concern is PM<sub>10</sub>. The potential emissions were calculated from the maximum hourly design rate (MHDR) of the equipment, appropriate emission factors, control device efficiencies, and the limiting operating hours at MHDR. The sources of the emission factors and control efficiencies are listed in the section “Permit Documents”. Based on the conditioned potential emissions, the operation is considered a minor source under 10 CSR 10-6.060 section (6).

The portable rock -crushing plant has an annual emission limit of less than 50 tons of PM<sub>10</sub> in any 12-month period. A composite PM<sub>10</sub> emission factor was developed for the portable rock-crushing plant. The composite emission factor is incorporated into the monthly record keeping table, Attachment C. If the conditioned potential emissions of PM<sub>10</sub> were 50 tons per year or greater, then the owner would be required to submit dispersion modeling results.

During this evaluation, PM<sub>10</sub> emissions from the load out of the product storage piles and the associated vehicular activities were not taken into account. Instead, they are evaluated as part of the operation for the concurrently operating concrete plants that will be taking aggregates from the rock-crushing plant.

The plant is allowed to operate an emergency diesel engine/generator with a design rate of 1,000 hp to power its equipment in case of power failures. Even though the emergency generator is exempt, its emissions should be taken into account. The emissions analysis is based on 500 hours of operation per year. If the diesel engine/generator operates for more than 500 hours per year, it will no longer be exempt and AmerenUE must apply for a new permit review.

**Table 2: Emissions Summary (tons per year)**

| Air Pollutant    | Regulatory De Minimis Levels | Existing Potential Emissions (tpy) | Existing Actual Emissions (tpy) | Potential Emissions of the Application (tpy) | *New Installation Conditioned Potential (tpy) | **Emission Factor |
|------------------|------------------------------|------------------------------------|---------------------------------|--|---|-------------------|
| PM <sub>10</sub> | 15.0                         | N/A                                | N/A                             | 86.68  | <50   | 0.01404/0.0003    |
| SOx              | 40.0                         | N/A                                | N/A                             | 2.30   | 2.30  | N/A               |
| NOx              | 40.0                         | N/A                                | N/A                             | 8.01   | 8.01  | N/A               |
| VOC              | 40.0                         | N/A                                | N/A                             | 2.87   | 2.87  | N/A               |
| CO               | 100.0                        | N/A                                | N/A                             | 7.56   | 7.56  | N/A               |
| HAPs             | 10.0/25.0                    | N/A                                | N/A                             | 0.008  | 0.008   | N/A               |

Note: N/A = Not Applicable

\* PM<sub>10</sub> conditioned potential based on limit in permit conditions. Conditioned potential of other pollutants based on 500 hours of operation of the emergency diesel engine/generator.

\*\*Emission factor of 0.01404 lbs/ton is from plant equipment other than the emergency generator/engine. Emission factor of 0.0003 lbs/ton is from the operations of the emergency generator/engine.

**AMBIENT AIR QUALITY IMPACT ANALYSIS**

Screening tools were used to evaluate the ambient air impact of the hourly emissions from this operation. The ambient impact was evaluated at a distance of 2,500 feet to the nearest property boundary. The ambient impact at this site shall not exceed the National Ambient Air Quality Standard (NAAQS) of 150 µg/m<sup>3</sup> of PM<sub>10</sub> at or beyond the nearest property boundary in any single 24-hour period. For sources agreeing to use Best Management Practices (BMPs), as defined in Attachment AA, haul roads and stockpiles are not modeled with screening tools. Instead, they are addressed as a background level of 20 µg/m<sup>3</sup> of PM<sub>10</sub>. To ensure conformity

with NAAQS, the remaining process emissions are limited to an impact of less than 130  $\mu\text{g}/\text{m}^3$  of  $\text{PM}_{10}$  at or beyond the nearest property boundary.

During solitary and concurrent (separate owners) operations, the rock-crushing plant can operate for twenty-four hours without violating NAAQS. Therefore, the plant will not be required to show compliance by keeping a record of its material processed and the resulting daily  $\text{PM}_{10}$  ambient impact. During concurrent (same owner) and concurrent (same **and** separate owners) operations, the plant will be required to show compliance with NAAQS by tracking not only its own daily  $\text{PM}_{10}$  ambient impact, but also the daily  $\text{PM}_{10}$  ambient impact of all other plants permitted under AmerenUE.

The screening tools were used to develop an ambient impact factor for the portable rock-crushing plant. This ambient impact factor shall be used to track the  $\text{PM}_{10}$  daily ambient impact of the plant and is incorporated into the daily record keeping tables, Attachment A and B.

**Table 3: Ambient Air Quality Impact Analysis of  $\text{PM}_{10}$ , 24-Hour Averaging Time**

| Operation                                       | Ambient Impact Factor ( $\mu\text{g}/\text{m}^3/\text{ton}$ ) | Modeled Impact ( $\mu\text{g}/\text{m}^3$ ) | *Background ( $\mu\text{g}/\text{m}^3$ ) | NAAQS ( $\mu\text{g}/\text{m}^3$ ) | Daily Production Limit (tons) |
|---|---|---|--|------------------------------------|-------------------------------|
| 1. Solitary                                     | 0.00082   | 27.59                                       | 20.00                                    | 150.00                             | 33,600                        |
| 2. Concurrent (Same Owner)                      | 0.00082   | **  | 20.00                                    | 150.00                             | **                            |
| 3. Concurrent (Separate Owners)                 | 0.00082   | 27.59                                       | 122.41                                   | 150.00                             | 33,600                        |
| 4. Concurrent (Same <b>and</b> Separate Owners) | 0.00082   | **  | 90.00                                    | 150.00                             | **                            |

\* During solitary and concurrent (same owner) operations, background  $\text{PM}_{10}$  level of 20.00  $\mu\text{g}/\text{m}^3$  from haul roads and storage piles. During concurrent (separate owners) operations, background  $\text{PM}_{10}$  level of 20.00  $\mu\text{g}/\text{m}^3$  from haul roads and storage piles and 102.41  $\mu\text{g}/\text{m}^3$  from the operations of plants permitted under other company's names. During concurrent (same **and** separate) owner operations, background  $\text{PM}_{10}$  level of 20.00  $\mu\text{g}/\text{m}^3$  from haul roads and storage piles and 70.00  $\mu\text{g}/\text{m}^3$  from the operations of plants permitted under other company's names.

\*\* The operator(s) must balance production among concurrently operating plants, permitted under AmerenUE, with the ambient impact factors for each, such that NAAQS is not exceeded. The ambient impact from other plants can be obtained from the operators of these plants.

### **APPLICABLE REQUIREMENTS**

The owner is subject to compliance with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements.

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
- An Operating Permit application is not required for this installation.
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170
- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-3.090
- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400
- *Restriction of Emission of Sulfur Compounds*, 10 CSR 10-6.260
- None of the New Source Performance Standards (NSPS) apply to the proposed equipment.
- 40 CFR Part 60 Subpart "OOO", *Standards of Performance for Nonmetallic Mineral Processing Plants*, of the New Source Performance Standards (NSPS)
- The National Emission Standards for Hazardous Air Pollutants (NESHAPs) and the currently promulgated Maximum Achievable Control Technology (MACT) regulations do not apply to the proposed equipment.

## **STAFF RECOMMENDATION**

On the basis of this review conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

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Chia-Wei Young  
Environmental Engineer

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Date

## **PERMIT DOCUMENTS**

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, designating AmerenUE as the owner and operator of the installation.
- Environmental Protection Agency (EPA) AP-42, *Compilation of Air Pollutant Emission Factors; Volume I, Stationary Point and Area Sources, Fifth Edition*.
- Noyes Data Corp. book, Orlemann, et al. 1983, *Fugitive Dust Control*.
- EPA Factor Information Retrieval (FIRE) Version 6.21.
- Spreadsheet calculations of potential-to-emit and ambient impact.
- Southeast Regional Office Site Survey.
- Best Management Practices
- Storage pile moisture content testing data submitted by AmerenUE.





**Attachment C: Monthly PM<sub>10</sub> Emissions Tracking Record  
AmerenUE, PORT-0584 – Portable Rock-Crushing Plant**

Project Number: 2007-01-061  
 County, CSTR: Reynolds County (S22, T33N, R2E)  
 Primary Unit Size: 1,400 tph  
 Distance to Nearest Property Boundary: 2,500 feet

This sheet covers the period from \_\_\_\_\_ to \_\_\_\_\_ (Month, Day, Year)  
 (Copy this sheet as needed.)

| Month | Monthly Production (tons) | Composite PM <sub>10</sub> Emission Factor (lbs/ton) | <sup>1</sup> Monthly PM <sub>10</sub> Emissions (tons) | Monthly Production (tons) | Composite PM <sub>10</sub> Emission Factor (lbs/ton) | <sup>1</sup> Monthly PM <sub>10</sub> Emissions (tons) | <sup>2</sup> Total Monthly PM <sub>10</sub> Emissions (tons) | <sup>3</sup> 12-Month PM <sub>10</sub> Emissions (tons/year) |
|-------|---------------------------|--|--|---------------------------|--|--|--|--|
|       |                           | 0.01404  |  |                           | <sup>4</sup> 0.0003                                  |  |  |  |
|       |                           | 0.01404  |  |                           | 0.0003   |  |  |  |
|       |                           | 0.01404  |  |                           | 0.0003   |  |  |  |
|       |                           | 0.01404  |  |                           | 0.0003   |  |  |  |
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|       |                           | 0.01404  |  |                           | 0.0003   |  |  |  |
|       |                           | 0.01404  |  |                           | 0.0003   |  |  |  |

Note 1: The Monthly Emissions (tons) are calculated by multiplying the Monthly Production (tons) by the Composite Emission Factor (lbs/ton) and dividing by 2,000.  
 Note 2: The Total Monthly Emissions (tons) are calculated by adding the Monthly Emissions (tons).  
 Note 3: The 12-Month Emissions (tons/year) are a rolling total calculated by adding the Month's Emissions (tons) to the Monthly Emissions (tons) of the previous eleven (11) months. A total of less than **50** tons in any consecutive 12-month period indicates compliance.  
 Note 4: For use only when the emergency diesel engine/generator is operating. If the emergency diesel engine/generator is not operating, a value of zero (0) should be used.

## Attachment AA: Best Management Practices (BMPs)- Construction Industry Fugitive Emissions

Construction Industry Sites covered by the Interim Relief Policy shall maintain Best Management Control Practices (BMPs) for fugitive emission areas at their installations when in operation. Options for BMPs are at least one of the following:

### For Haul Roads:

1. Pavement of Road Surfaces –
  - A. The operator(s) may pave all or any portion of the haul roads with materials such as asphalt, concrete, and/or other material(s) after receiving approval from the program. The pavement will be applied in accordance with industry standards for such pavement so as to achieve “Control of Fugitive Emissions<sup>1</sup>” while the plant is operating.
  - B. Maintenance and/or repair of the road surface will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.
  - C. The operator(s) shall periodically water, wash and/or otherwise clean all of the paved portions of the haul road(s) as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
  
2. Usage of Chemical Dust Suppressants –
  - A. The operator(s) shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to all the unpaved portions of the haul roads. The suppressant will be applied in accordance with the manufacturer’s suggested application rate (if available) and re-applied as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
  - B. The quantities of the chemical dust suppressant shall be applied, re-applied and/or maintained sufficient to achieve control of fugitive emissions from these areas while the plant is operating.
  - C. The operator(s) shall record the time, date and the amount of material applied for each application of the chemical dust suppressant agent on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.
  
3. Usage of Documented Watering –
  - A. The operator(s) shall control the fugitive emissions from all the unpaved portions of the haul roads at the installation by consistently and correctly using the application of a water spray. Documented watering will be applied in accordance with a recommended application rate of 100 gallons per day per 1,000 square feet of unpaved/untreated surface area of haul roads as necessary to achieve control of fugitive emissions from these areas while the plant is operating. For example, the operator(s) shall calculate the total square feet of unpaved vehicle activity area requiring control on any particular day, divide that product by 1,000, and multiply the quotient by 100 gallons for that day.
  - B. The operator(s) shall maintain a log that documents daily water applications. This log shall include, but is not limited to, date and volumes (e.g., number of tanker applications and/or total gallons used) of water application. The log shall also record rationale for not applying water on day(s) the plant is in operation (e.g., meteorological situations, precipitation events, freezing, etc.)
  - C. Meteorological precipitation of any kind, (e.g. a quarter inch or more rainfall, sleet, snow, and/or freeze thaw conditions) which is sufficient in the amount or condition to achieve control of fugitive emissions from these areas while the plant is operating.
  - D. Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads. The operator(s) shall record a brief description of such events in the same log as the documented watering.
  - E. The operator(s) shall record the date and the amount of water applied for each application on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.

<sup>1</sup> For purposes of this document, Control of Fugitive Emissions means to control particulate matter that is not collected by a capture system and visible emissions to the extent necessary to prevent violations of the air pollution law or regulation. (Note: control of visible emission is not the only factor to consider in protection of ambient air quality.)

**For Vehicle Activity Areas around Open Storage Piles:**

1. Pavement of Stockpile Vehicle Activity Surfaces –
  - A. The operator(s) may pave all or any portion of the vehicle activity areas around the storage piles with materials such as asphalt, concrete, and/or other material(s) after receiving approval from the program. The pavement will be applied in accordance with industry standards for such pavement so as to achieve control of fugitive emissions while the plant is operating.
  - B. Maintenance and/or repair of the road surface will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.
  - C. The operator(s) shall periodically water, wash and/or otherwise clean all of the paved portions of the vehicle activity areas around the storage piles as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
  
2. Usage of Chemical Dust Suppressants –
  - A. The operator(s) shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to all the vehicle activity areas around the open storage piles. The suppressant will be applied in accordance with the manufacturer's suggested application rate (if available) and re-applied as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
  - B. The quantities of the chemical dust suppressant shall be applied, re-applied and/or maintained sufficient to achieve control of fugitive emissions from these areas while the plant is operating.
  - C. The operator(s) shall record the time, date and the amount of material applied for each application of the chemical dust suppressant agent on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.
  
3. Usage of Documented Watering –
  - A. The operator(s) shall control the fugitive emissions from all the vehicle activity areas around the storage piles at the installation by consistently and correctly using the application of a water spray. Documented watering will be applied in accordance with a recommended application rate of 100 gallons per day per 1,000 square feet of unpaved/untreated surface area of vehicle activity areas around the storage piles as necessary to achieve control of fugitive emissions from these areas while the plant is operating. (Refer to example for documented watering of haul roads.)
  - B. The operator(s) shall maintain a log that documents daily water applications. This log shall include, but is not limited to, date and volumes (e.g., number of tanker applications and/or total gallons used) of water application. The log shall also record rationale for not applying water on day(s) the plant is in operations (e.g., meteorological situations, precipitation events, freezing, etc.)
  - C. Meteorological precipitation of any kind, (e.g. a quarter inch or more rainfall, sleet, snow, and/or freeze thaw conditions) which is sufficient in the amount or condition to achieve control of fugitive emissions from these areas while the plant is operating.
  - D. Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads. The operator(s) shall record a brief description of such events in the same log as the documented watering.
  - E. The operator(s) shall record the date and the amount of water applied for each application on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.

Mr. Kenneth J. Anderson  
Principal Engineer  
AmerenUE  
1901 Chouteau Avenue  
St. Louis, MO 63103

RE: New Source Review Permit - Project Number: 2007-01-061

Dear Mr. Anderson:

Enclosed with this letter is your New Source Review permit. Please review your permit carefully and note the special conditions, if any, and the requirements in your permit.

Operation in accordance with the conditions and requirements in your permit and the New Source Review application submitted for project 2007-01-061 is necessary for continued compliance. The section of the permit entitled "Technical Review of Application for Authority to Construct" should not be separated from the main portion of your permit. The entire permit must be retained in your files. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you have any questions regarding this permit, please do not hesitate to contact me at (573) 751-4817, or you may write to the Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, Missouri 65102. Thank you for your attention to this matter

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale  
New Source Review Unit Chief

KBH:cwyl

Enclosures

c: Southeast Regional Office  
PAMS File: 2007-01-061  
Permit Number: